

## **AMENDMENTS TO THE CLAIMS**

1. **(PREVIOUSLY PRESENTED)** A method for modifying combustion in a combustion chamber of a 4-stroke internal combustion engine running under standard warm (non-starting) engine temperatures, the method comprising the step of briefly opening a combustion chamber intake valve sometime during a period spanning:
  - a. the latter half of the compression stroke, and
  - b. the first half of the power stroke,such opening being subsequent to the closing of the same intake valve during the intake stroke, and solely allowing the escape of combustion chamber gases.
2. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein the briefly opening of the combustion chamber intake valve effects an escape of no greater than approximately 15% of the mass of the combustion chamber contents.
3. **(CANCELED)**
4. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein the combustion chamber intake valve is briefly opened two or more times during the period.
5. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein the combustion chamber intake valve is briefly opened during the period of crankshaft rotation between:
  - a. 50 degrees before top dead center, and
  - b. 50 degrees after top dead center.

6. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein the combustion chamber intake valve is briefly opened during the period of crankshaft rotation between:
  - a. 30 degrees before top dead center, and
  - b. 30 degrees after top dead center.
7. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein the combustion chamber intake valve is briefly opened for no greater than approximately 7 degrees of crankshaft rotation.
8. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein the combustion chamber intake valve is briefly opened for no greater than approximately 5 degrees of crankshaft rotation.
9. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein the combustion chamber intake valve is briefly opened for no greater than approximately 3 degrees of crankshaft rotation.
10. **(CANCELED)**
11. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein the combustion chamber intake valve is briefly opened at or substantially near the time of ignition.
12. **(PREVIOUSLY PRESENTED)** The method of claim 1 wherein multiple combustion chamber intake valves are briefly opened during the period.
13. **(PREVIOUSLY PRESENTED)** The method of claim 12 wherein at least some of the multiple combustion chamber intake valves are briefly opened during the period starting at different times.
14. **(CANCELED)**

15. **(CURRENTLY AMENDED)** A method for modifying combustion in a combustion chamber of a 4-stroke internal combustion engine running under standard warm (non-starting) engine temperatures, the method comprising the step of briefly opening a combustion chamber intake valve during a period extending over at least one of the compression stroke and the power stroke, with such brief opening:
- a. being subsequent to the closing of the same intake valve during the intake stroke, and
  - b. **being subsequent to the first half of the compression stroke, and**
  - c. effecting an escape of no more than approximately 15% of the mass of the combustion chamber contents.
16. **(PREVIOUSLY PRESENTED)** The method of claim 15 wherein the combustion chamber intake valve is briefly opened two or more times during the period.
17. **(PREVIOUSLY PRESENTED)** The method of claim 15 wherein the combustion chamber intake valve is briefly opened during the period of crankshaft rotation between:
- a. 50 degrees before top dead center, and
  - b. 50 degrees after top dead center.
18. **(PREVIOUSLY PRESENTED)** The method of claim 15 wherein the combustion chamber intake valve is briefly opened during the period of crankshaft rotation between:
- a. 30 degrees before top dead center, and
  - b. 30 degrees after top dead center.
19. **(PREVIOUSLY PRESENTED)** The method of claim 15 wherein the combustion chamber intake valve is briefly opened for no greater than approximately 7 degrees of crankshaft rotation.
20. **(CANCELED)**

21. **(PREVIOUSLY PRESENTED)** The method of claim 15 wherein the combustion chamber intake valve is briefly opened at or substantially near the time of ignition.
22. **(PREVIOUSLY PRESENTED)** The method of claim 15 wherein multiple combustion chamber intake valves are briefly opened during the period.
23. **(PREVIOUSLY PRESENTED)** The method of claim 22 wherein at least some of the multiple combustion chamber intake valves are briefly opened during the period starting at different times.
24. **(CANCELED)**